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EXAMINER
BUI, KIEU OANH T

ART UNIT	PAPER NUMBER
2611	

DATE MAILED: 12/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/155,796	YAMAGUCHI, TOMOHISA	
	Examiner	Art Unit	
	KIEU-OANH T BUI	2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18 and 21-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18 and 21-26* is/are rejected.

7)☒ Claim(s) *19 and 20* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-18, and 21-26 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

2. Claims 19-20 are allowed.

3. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to suggest a video data distribution method as cited in claim 16 and further comprising the steps of "wherein in the transmission level determining step, when the video data playback device plays back the video data with fast speed, the transmission level is determined in such a manner that the video data with a part of frame data thinned from plural frame data included in the video data is extracted, and when fast playback is not performed, the transmission level is determined in such a manner that the frame data of the video data is not thinned" and "wherein in the data extracting step, when the video data playback device quickly forwards and plays back the video data including plural frame data and voice data, said voice data is deleted from the video data and the number of frame data corresponding to the transmission level is extracted to generate video data, and in the transmitting step, the video data generated by said data extracting step is transmitted" as recited in claims 19-20.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> *(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

5. Claims 1-2, 4-9, 11-18 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katseff et al. (U.S. Patent No. 5,822,537) in view of Dixit (U.S. Patent No. 5,260,783) and Joseph et al (U.S. Patent No. 5,819,034).

Regarding claims 1 and 11, Katseff et al (or "Katseff" hereinafter) disclose a video data distribution device (Fig. 1) which comprises: a load processing device for processing a load condition of a network or the video data distribution device, i.e., utilizing a prefetch subroutine for retrieving load condition of network such as frames worth of audio and video from a file server to store in an audio and video buffer (col. 8/lines 56-67) and a subroutine for monitoring its load statuses (Fig. 10 and col. 15/lines 15-37).

Although Katseff includes the step of decompressing JPEG data to users (col. 9/lines 9-22), Katseff does not clearly mention "a data extractor for extracting an amount of frame data from video data comprising frame data, the amount of extracted frame data corresponding to a load condition processed by said processing device; and a transmitter for transmitting the frame data extracted by the data extractor"; however, the technique of using a data extractor for extracting an amount of frame data from video data comprising frame data is disclosed by Dixit. In fact, Dixit does the same technique of using an encoding selector for detecting and selecting different or relative motion between the video frame being encoded and the previous video frame over a digital communications channel such as packet switched network in order to provide data compatibility among video services over the network as desired (see Dixit, Figs 1 & 2, col.

1/lines 22-60, and col. 2/lines 8-21). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Katseff's system with Dixit's data encoding selector in order to detect and select an appropriate amount of frame data from video data comprising frame data corresponding to a load condition processed by the processing device as desired. The motivation for doing this is to offer necessary means for extracting an amount of frame data receiving from the previous step for video data processing purposes. As for claim 11, in further view of claim 1, Katseff discloses "a load measuring device for measuring a load condition of a network or the video data distribution system", i.e., a data buffer monitoring subroutine in the processing unit continuously monitors the load of the network based on predefined threshold level (Katseff, Fig. 10 and col. 15/line 15-col. 16/line 57). Furthermore, Dixit shows "a video data distribution device comprising a data extractor" (as discussed in claim 1 above) and "a video data playback device for receiving the frame data transmitted from the transmitter of said video data distribution device via said network and playing back the received frame data" (Figs. 10-13 all, and col. 13/line 5 to col. 14/line 3 for illustrations of video data playback device in displaying different resolutions according to different scenarios).

In addition, since the Applicants argues that Katseff and Dixit are silent with respect to any type of data extractor, which the Examiner once stated that to use "a data extractor" for extracting frame date from data stream, the Examiner now would like to bring up the teachings of Joseph about the use of a data extractor in client-server distributed computer system which also has application in broadcast multimedia applications (Joseph, col. 1/lines 5-8 and col. 2/lines 21-54). Joseph clearly disclose the use of the data extractor in extracting frame data from data (video) stream (col. 2/lines 21-40 & col. 3/lines 1-11; and Fig. 4/item 206 and col. 12/lines 17-65) and further teaches that "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load processing device" with the disclosure that "the size of the packets within any packet stream VARY with the amount of data to be carried"

(col. 11/lines 10-23) corresponding the need the user's requests (col. 3/lines 32-39). Therefore, it would have been obvious to clarify Katseff and Dixit's video data distribution system with Joseph's disclosed technique in using a data extractor in order to obtain the step of "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load processing device" in controlling the load processing for the video data distribution system at any time as preferred.

As for claim 2, in view of claim 1 above, the step of "wherein based on the load condition processed by said processing device, the data extractor extracts all of the frame data comprised within the video data when the load is low, and extracts a part of the frame data comprised within the video data when the load is high" is disclosed by Katseff as Katseff shows that when the load is extreme, the system will transmit only audio data, without any video data, to the user at the workstation (Katseff, col. 2/lines 56-64) which is an indication that part of the frame data, i.e., using JPEG format with video frames (col. 9/lines 1-22) is transmitted only, not all of the frame data.

As for claim 4, in addition to claim 1 above, the step of "wherein the video data comprises intra-frame compressed frame data and inter-frame compressed frame data, the data extractor extracts the video data with inter-frame compressed frame data deleted therefrom from the video data having intra-frame compressed frame data and inter-frame compressed frame data based on load condition processed by the load processing device, and the transmitter transmits the video data extracted by the data extractor" is taught by Dixit as Dixit reveals that intra-frame compressed frame data and inter-frame compressed data differ each other in their encoded amount (Dixit, col.2/lines 1-8, and Figs. 14A & 14B) and the inter-frame compressed frame data is the video data encoded using the intra-frame compressed frame I or the inter-frame

compressed frame P, i.e., using the video information in that frame and the video information from previous frames (Dixit, col. 4/lines 48-53).

In addition to claim 4, since the Applicants argues that Katseff and Dixit are silent with respect to any type of data extractor, which the Examiner once stated that to use "a data extractor" for extracting frame date from data stream, the Examiner now would like to bring up the teachings of Joseph about the use of a data extractor in client-server distributed computer system which also has application in broadcast multimedia applications (Joseph, col. 1/lines 5-8 and col. 2/lines 21-54). Joseph clearly disclose the use of the data extractor in extracting frame data from data (video) stream (col. 2/lines 21-40 & col. 3/lines 1-11; and Fig. 4/item 206 and col. 12/lines 17-65) and further teaches that "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load processing device" with the disclosure that "the size of the packets within any packet stream VARY with the amount of data to be carried" (col. 11/lines 10-23) corresponding the need the user's requests (col. 3/lines 32-39). Therefore, it would have been obvious to clarify Katseff and Dixit's video data distribution system with Joseph's disclosed technique in using a data extractor in order to obtain the step of "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load processing device" in controlling the load processing for the video data distribution system at any time as preferred.

As for claim 5, Katseff further discloses "wherein the video data is MPEG data" (col. 7/lines 10-12).

As for claim 6, similar to claim 4 above, the step of "wherein the MPEG data comprises I pictures and P pictures, and the data extractor generates the MPEG data with P picture deleted therefrom in accordance with the load condition processed by the load processing device" is taught by Dixit as Dixit reveals that intra-frame compressed frame data and inter-frame compressed data differ each other in their encoded amount and the inter-frame compressed frame data P is the video data encoded using the intra-frame compressed frame I or the inter-frame compressed frame P (see claim 4 above), and Dixit uses an encoding selector as a motion detector to detect, select, and extract the inter-frame compressed data P out (as illustrated in Figure 2, and col. 2/lines 8-21).

In addition to claim 6 above, since the Applicants argues that Katseff and Dixit are silent with respect to any type of data extractor, which the Examiner once stated that to use "a data extractor" for extracting frame date from data stream, the Examiner now would like to bring up the teachings of Joseph about the use of a data extractor in client-server distributed computer system which also has application in broadcast multimedia applications (Joseph, col. 1/lines 5-8 and col. 2/lines 21-54). Joseph clearly disclose the use of the data extractor in extracting frame data from data (video) stream (col. 2/lines 21-40 & col. 3/lines 1-11; and Fig. 4/item 206 and col. 12/lines 17-65) and further teaches that "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load processing device" with the disclosure that "the size of the packets within any packet stream VARY with the amount of data to be carried" (col. 11/lines 10-23) corresponding the need the user's requests (col. 3/lines 32-39) as well as "wherein the video data is MPEG data" (Joseph, col. 6/lines 34-50). Therefore, it would have been obvious to clarify Katseff and Dixit's video data distribution system with Joseph's disclosed technique in using a data extractor in order to obtain the step of "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load

processing device" in controlling the load processing for the video data distribution system at any time as preferred.

As for claims 7 and 8, in further view of claim 6 above, the steps of "wherein the MPEG data comprises I pictures and B pictures, and the data extractor generates MPEG data with B picture deleted therefrom from MPEG data having I picture and B picture in accordance with the load condition processed by the load processing device" and "wherein the MPEG data comprises I pictures, P pictures, and B pictures, and the data extractor generates MPEG data with P picture and B picture deleted therefrom from MPEG data having I picture, P picture and B picture in accordance with the load condition processed by the load processing device" are suggested by Dixit as Dixit reveals that intra-frame compressed data I can be detected for extracting by an intra-frame encoder (Dixit, Fig. 2 and col. 2/lines 5-8, and the Examiner's discussion in claim 6 about the data extractor with the teachings of Joseph).

Concerning claim 9, in further view of claim 6 above, Dixit further discloses "wherein the MPEG data comprises a plurality of I pictures, and the data extractor extracts plural I pictures from MPEG data having plural I pictures at intervals corresponding to the load condition processed by the load processing device" as Dixit addresses load conditions processed by the load processing device on the network such as the issues of transmission efficiency, the sensitivity of the overall video quality, different modes in encoding techniques, and/or the transmission priority under the network congestion control (see col. 2/line 66-col. 3/line 10; col. 6/lines 22-40; col. 7/lines 15-25, lines 52-65; and col. 10/lines 21-43; and the Examiner's discussion in claim 6 about the data extractor with the teachings of Joseph).

As for claim 12, Dixit reveals "wherein the load measuring unit measures a load of a processor for controlling operation of the video data playback device", i.e., network congestion control is provided (col. 2/line 66-col. 3/line 10).

Regarding claim 13, the combination of Katseff and Dixit does reveal that the system can be connected to a VCR and recording media (etc.) in the network (Katseff, Fig. 3/items 325 & 330) which suggests more than one VCR can be utilized same as the step of "wherein a plurality of video data playback devices are connected to the network" and the step of "frame data transmitted from the transmitter of the video data distribution device via said network is received by each of said plurality of video data playback devices" are suggested by Katseff as Katseff reveals that his system is a multimedia information retrieval system which connected to either a LAN or WAN (col. 3/lines 58-67) that allows to be accessed and shared by a plurality of users as well as with a plurality of file servers for distributing multimedia files (col. 4/line 65-col. 5/line 5).

As for claim 14, the step of "wherein the video data playback device transmits a plurality of data transfer requests in which each data transfer request designates a data amount to the video data distribution device, and upon receiving said data transfer requests, the video data distribution device transmits frame data based on the data amount designated by each data transfer request" is suggested by Dixit as Dixit discloses the technique of detecting the video motion, monitoring the data amount, adjusting the rate and also adjusting the amount of output frame data using the motion detector as well as the network congestion control in handling same task as claimed (Dixit, col. 2/line 1-col. 3/line 29).

Concerning claim 15, Dixit further suggests "wherein the video data playback device transmits a data transfer request in which video data is designated, and upon receiving said data transfer request, the video data distribution device transmits a plurality of packets having a portion of the frame data of said video data at predetermined intervals", i.e, packets are transmitted under an ATM switch at predetermined intervals by using fixed length codewords for transferring video information (col. 2/line 47 to col. 3/line 28).

Regarding claim 16, in view of claim 1 above, the combination of Katseff and Dixit teaches a video data distribution method (Katseff, Figs 1 & 3) which comprises: transmission level determining step of determining a transmission level in accordance with a load of a video data distribution system (Katseff, Fig. 10 and col. 15/lines 1-65); a data extracting step of extracting an amount of frame data from video data comprising frame data corresponding to the transmission level determined by said transmission level determining step (see Examiner's discussion in claim 1 above); and a transmitting step of transmitting the frame data extracted by said data extracting step, said extracting step and said transmitting step being performed within a video data distribution device (Dixit, Fig. 2, and col. 4/line 56-col. 6/line 40).

In addition to claim 16, since the Applicants argues that Katseff and Dixit are silent with respect to any type of data extractor, which the Examiner once stated that to use "a data extractor" for extracting frame date from data stream, the Examiner now would like to bring up the teachings of Joseph about the use of a data extractor in client-server distributed computer system which also has application in broadcast multimedia applications (Joseph, col. 1/lines 5-8 and col. 2/lines 21-54). Joseph clearly disclose the use of the data extractor in extracting frame data from data (video) stream (col. 2/lines 21-40 & col. 3/lines 1-11; and Fig. 4/item 206 and col. 12/lines 17-65) and further teaches that "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load processing device" with the disclosure that "the size of the packets within any packet stream VARY with the amount of data to be carried" (col. 11/lines 10-23) corresponding the need the user's requests (col. 3/lines 32-39). Therefore, it would have been obvious to clarify Katseff and Dixit's video data distribution system with Joseph's disclosed technique in using a data extractor in order to obtain the step of "wherein a number of frames within the extracted frame data corresponds to a load condition processed by the load processing device" in controlling the load processing for the video data distribution system at any time as preferred.

As for claims 17 and 18, these claims are rejected in the scope of claims 12 and 16 for claim 17 and claim 11 for claim 18 as already discussed above.

Regarding claims 21-26, Katseff discloses "wherein the load processing device processes a load condition of a network by measuring a degree of congestion of network" (Katseff, Network congestion, col. 14/line 55-col. 16/line 57); and further steps including "which is transmitted from a video playback device", "the data extractor extracts a reduced number of frames of the frame data comprised within the video data", about "P pictures and B pictures", "the load measuring unit is contained within the video distribution device or with the video playback device" and "the video playback device transmits the measurement result of the load measuring unit to the video data distribution device" are rejected in the scope of claims 1-2, 4-9 and 11-16 as already disclosed in details above.

6. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katseff (U.S. Patent No. 5,822,537) in view of Dixit (U.S. Patent No. 5,260,783) and Joseph et al (U.S. Patent No. 5,819,034) and in further view of Takahashi (U.S. Patent No. 5,739,865).

Regarding claim 3, Katseff and Dixit do not disclose to include the thinning process for frame data such that "wherein the data extractor extracts an amount of frame data by thinning frame data from the frame data comprised within the video data based the load condition processed by the load processing device" although Joseph discloses the technique of varying the size of the packets within any packet stream with the amount of data to be carried (Joseph, col. 11/lines 8-23); however, Takahashi teaches a same technique of thinning out frame data in Takahashi's image processing system (Fig. 14 and col. 10/lines 30-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Katseff and Dixit's combination system with a known technique of thinning out frame data in

video or image processing system in order to automatically adjust frame data corresponding to its load condition as obtained in the previous process of the load processing. The motivation for doing this is to manipulate frame data as much as possible for data transmission in avoiding traffic congestions or in controlling the load processing as suggested by Joseph (col. 3/lines 30-44) as already discussed in claim 1 above.

As for claim 10, in further view of claim 3, the combination of Katseff and Dixit reveals to further comprises an encoder (Dixit, Fig. 1/item 50) for encoding image signals from a video camera in real time, i.e., capturing a meeting or presentations by using a camera in real time (Katseff, Fig. 3/item 330 and col. 6/lines 35-44) and generating video data having plural frame data (Dixit, col. 1/line 65 to col. 2/line 21); and a buffer for temporarily storing the video data generated by the encoder (Katseff, Fig. 10, and col. 2/lines 45-55), wherein by thinning frame data from the frame data comprised within the video data stored in said buffer, the data extractor extracts an amount of frame data from said video data based on the load condition processed by the load processing device (see Examiner's discussion in claim 3 above).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krista Kieu-Oanh Bui whose telephone number is (703) 305-0095. The examiner can normally be reached on Monday- Friday from 9:00 AM to 6:00 PM, with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Krista Bui
Art Unit 2611
December 06, 2001